

### AMENDMENTS TO THE CLAIMS

Please amend the claims as follows. This listing of claims will replace all prior versions, and listings, of claims in the application:

#### **Listing of Claims**

1. (Currently amended) A method comprising: for detecting  
using a neural network to detect degrees of risk of at least one data structure[[s]]  
~~of a~~ established by a computer program code with a neural network, the  
data structure comprising at least two data elements and the said neural  
network comprising at least two neurons, ~~and~~ the neurons being related to  
each other by a topological arrangement involving a neighborhood  
definition, each of the neurons comprising a vector for representing  
elements of an input data space, at least one neuron having an associated  
label indicating the type of the neuron, ~~and the data structures whose~~  
~~degrees of risk being detected comprising at least two data elements~~  
~~wherein the method comprises:~~  
extracting information ~~of~~ concerning the at least two data elements from the at  
least one data structure,  
forming at least two input vectors from said extracted information of the data  
elements, the vectors being compatible with the vectors of the neurons,  
comparing said input vectors with said vectors of the neurons,

detecting a type of said at least one data structure by using an associated label obtained on the basis of said comparison, and presenting the type of said at least one data structure as data indicating a degree of risk of said at least one data structure.

2. (Previously presented) A method according to claim 1, wherein said vectors of the neurons have been formed by applying a self-organizing learning process such that learning data vectors have been allowed to change said vectors of the neurons by using a neighborhood mapping.

3. (Previously presented) A method according to claim 1, wherein said neurons have been labeled on the basis of a labeling data item, wherein said labeling data item is examined to be at least one of the following; safe type data item, risky type data item, or fail type data item.

4. (Previously presented) A method according to claim 1, wherein said input vectors are compared to the vector of the neuron by using at least one of the following methods: the Euclidean distance, the Hamming distance, the Taxicab drivers distance, L1 norm, or dot product.

5. (Previously presented) A method according to claim 4, wherein the type of said at least one data structure is detected by selecting the label of a neuron whose vector has the closest metric.

6. (Previously presented) A method according to claim 4, wherein the type of said at least one data structure is detected by selecting the label of the closest neighbor of the neuron whose vector has the closest metric.

7. (Previously presented) A method according to claim 4, wherein the type of said at least one data structure is detected by selecting the label of the closest labeled neuron on the map next to the neuron whose vector has the closest metric.

8. (Currently amended) An electronic device comprising: ~~for detecting degrees of risk of data structures of a computer program code with a~~  
neural network apparatus configured to create a, ~~said~~ neural network comprising at least two neurons, ~~and~~ the neurons being related to each other by a topological arrangement involving a neighborhood definition, each of the neurons comprising a vector for representing elements of an input data space, and at least one neuron having an associated label indicating the type of the neuron, ~~and the data structures whose degrees of risk being detected comprising at least two data elements,~~ ~~the electronic device comprising:~~

~~extracting means for extracting~~ apparatus configured to extract information of ~~of~~ concerning at least two data elements from at least one data structure of a computer program code,

~~formation means for forming~~ apparatus configured to form at least two input vectors from said extracted information of the data elements, the vectors being compatible with the vectors of the neurons,

~~comparison means for comparing~~ apparatus configured to compare said input vectors with said vectors of the neurons,

~~detecting means for detecting~~ apparatus configured to detect a type of said at least one data structure by using an associated label obtained on the basis of said comparison, and

~~presenting means for presenting~~ apparatus configured to present the type of said at least one data structure as data indicating a degree of risk of said at least one data structure.

9. (Currently amended) An electronic device according to claim 8, further comprising second forming ~~means for forming~~ apparatus configured to form said vectors of the neurons by applying a self-organizing learning process, wherein learning data vectors have been allowed to change the vectors of the neurons by using a neighborhood mapping.

10. (Currently amended) An electronic device according to claim 9, wherein the second forming ~~means are~~ apparatus is further ~~arranged~~ configured to label the neurons on the basis of a labeling data item, wherein said labeling data item is examined to be at least one of the following; safe type data item, risky type data item, or fail type data item.

11. (Currently amended) An electronic device according to claim 8, wherein the comparison ~~means are arranged~~ apparatus is configured to compare the input vector to the vector of the neuron by using at least one of the following methods: the Euclidean distance, the Hamming distance, the Taxicab drivers distance, L1 norm, or dot product.

12. (Currently amended) An electronic device according to claim 8, wherein the detecting ~~means are arranged~~ apparatus is configured to detect the type of said at least one data structure by selecting the label of a neuron whose vector has the closest metric.

13. (Currently amended) An electronic device according to claim 8, wherein the detecting ~~means are arranged~~ apparatus is configured to detect the type of said at least one data structure by selecting the label of the closest neighbor of the neuron whose vector has the closest metric.

14. (Currently amended) An electronic device according to claim 8, wherein the detecting ~~means are arranged~~ apparatus is configured to detect the type of said at least

one data structure by selecting the label of the closest labeled neuron on the map next to the neuron whose vector has the closest metric.

15. (Currently amended) A computer program product comprising a memory tangibly embodying a computer program, the computer program, when executed, configured to cause an electronic device to ~~for an electronic device for detecting~~ detect a degree[[s]] of risk of at least one data structure[[s]] of a computer program code with a neural network, said neural network comprising at least two neurons, ~~and~~ the neurons being related to each other by a topological arrangement involving a neighborhood definition, each of the neurons comprising a vector for representing elements of an input data space, at least one neuron having an associated label indicating the type of the neuron;[[,]] ~~and the data structures whose degrees of risk being detected comprising at least two data elements, the computer program product comprising: computer program code for causing the electronic device to extract information of~~ concerning at least two data elements from the at least one data structure;[[,]] ~~computer program code for causing the electronic device to form at least two input vectors from said extracted information of the data elements, the vectors being compatible with the vectors of the neurons;[[,]] computer program code for causing the electronic device to compare said input vectors with said vectors of the neurons;[[,]] computer program code for causing the electronic device to detect a type of said at least one data structure by using an associated label obtained on the basis of said comparison;[[,]] and computer program code for causing the~~

Commissioner for Patents  
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~~electronic device~~ to present the type of said at least one data structure as data indicating a degree of risk of said at least one data structure.